

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

JSDQ MESH TECHNOLOGIES LLC,

Plaintiff,

v.

FLUIDMESH NETWORKS, LLC (f/k/a
FLUIDMESH NETWORKS, INC.),

Defendant.

C.A. No. 16-212-GMS

OPENING BRIEF IN SUPPORT OF DEFENDANT'S MOTION TO DISMISS

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I. NATURE AND STAGE OF THE PROCEEDINGS

On March 31, 2016, JSDQ Mesh Technologies LLC (“JSDQ”) filed its Complaint For Patent Infringement against Defendant Fluidmesh Networks LLC (“Fluidmesh”) on four patents: U.S. Patent Nos. 7,286,828 (“the ’828 Patent”); 7,916,648 (“the ’648 Patent”); RE43,675 (“the ’675 Patent”); and RE44,607 (“the ’607 Patent”) (collectively, “the Asserted Patents”). (D.I. 1.)

The Asserted Patents seek to claim ownership over nothing more than an abstract idea. The claims broadly cover the disembodied idea of routing messages between nodes of a communication network. The Supreme Court recently reaffirmed the patent laws’ 150-year-old prohibition against owning abstract ideas in recognition of the danger that functional and nonspecific claims implemented using conventional computing technology would impede—rather than promote—innovation.

Defendant therefore brings this Motion to Dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6) because, consistent with the Supreme Court’s decision in *Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014) and 35 U.S.C. § 101, the claims of the Asserted Patents are directed to a patent-ineligible abstract idea and do not include an inventive concept that would make the abstract idea patent-eligible. Accordingly, the Court should dismiss this action with prejudice, as the patents, on their face, involve no more than the use of basic computer and telecommunications technology to perform a basic and conventional idea without adding anything “significantly more.” *Alice*, 134 S. Ct. at 2355.

II. SUMMARY OF THE ARGUMENT

The claims of the Asserted Patents are directed toward an abstract concept that is similar to those covered in other patents that recently have been invalidated by federal courts under Section 101. The generality of the concepts that JSDQ seeks to monopolize is apparent from the purported reach of the claims. JSDQ has brought a series of patent infringement suits in this and

other districts against a myriad of defendants under the Asserted Patents, but, despite the fact that JSDQ's multiple targets are very different companies offering very different services via very different products, JSDQ alleges that all of the Asserted Patents are nevertheless infringed by each of their respective and diverse products.

Using terms such as “establishing wireless links,” “routing messages,” “optimum wireless communication route,” and “radio parameter,” the Asserted Patents purport to ground their claimed abstract concept in computer requirements and components. But looking past the artificial complexity suggested by this jargon, it is apparent that the claims of the Asserted Patents are directed to well-known abstract concepts, which are facilitated by generic computer hardware and software that perform the basic functions of a computer—storage, transmission of data, and reliable execution of instructions. The Supreme Court recently made clear in *Alice* that, even when specified in great detail, merely “requir[ing] a generic computer to perform generic computer functions” cannot transform an abstract idea into patentable subject matter. *Alice*, 134 S. Ct. at 2359. Thus, Defendants respectfully request that the Court dismiss the Complaint with prejudice pursuant to Rule 12(b)(6).

III. STATEMENT OF THE FACTS

The ‘648 and ‘828 Patents share a common specification, as do the ‘675 and ‘607 Patents. In addition, the ‘675 and ‘607 Patents incorporate by reference the specification of the ‘648 and ‘828 Patents. All Asserted Patents generally relate to the same subject matter, are substantially similar, and claim the same abstract idea—fundamental methods of routing a message among a plurality of telecommunication nodes, independent of a central computer separate from the nodes. The reissue patents further claim using a directional signal.

The Asserted Patents reach back to 1995 and recognize that “[t]he concepts of cellular radio are well known, and in fact, all major metropolitan areas in the USA today enjoy cellular

radio services.” ‘648 patent, col. 1, ll. 17–19 (Background of the Invention). However, because “[o]ne of the most expensive elements in a cellular system is the central cellular switch,” the Asserted Patents endorse the use of prior art “decentralized” systems. *Id.*, col. 1, ll. 23–24, 34. For example, “[t]he concept of having radios mounted on numerous telephone poles . . . has been well publicized” and “implies decentralization.” *Id.*, col. 1, ll. 38–39, 44–45. “In a decentralized system, there is a need to be able to control handoff without either a central switch, or a hierarchical system that might delegate handoff control to a local switch.” *Id.*, col. 2, ll. 35–38. “Consequently, there is a need for a system that would provide decentralized operation, without a large cellular central computer to control the various base sites, and yet such that this system could ultimately connect to the various land line services.” *Id.*, col. 2, ll. 39–43.

The Asserted Patents recognize pertinent prior art in this regard:

S. Arunkumar and R. S. Panwar in an article entitled “Efficient Broadcast Using Selective Flooding” on page 2060 in the IEEE INFOCOM discuss methods of improving the efficiency of the signaling process in the route establishment procedure. In their article they are referring to a US Army mobile subscriber system wherein nodes and links are in a freeform non-grid pattern. System nodes, transmitter and receiver sites, are connected to other nodes via point to point radio links. As nodes are moved around, different selective point to point links are established.

Although radio links between selected sites can be established by referring to standard topographical maps, propagation charts, and antenna compass directions, such procedures are expensive and not flexible. Also, there is the possibility for human error in propagation calculations, or map reading. At installation time, various antennas have to be pointed in specific directions. Also, if new sites are created or removed, then the entire system must be studied to ascertain the impact of the changes. If buildings have been built that are not on the maps, then selected radio paths will not work as planned.

Id., col. 2, ll. 44–63.

The Asserted Patents “consequently” recognize a “need for a system that *automatically* establishes links based on the real propagation path, as opposed to establishing links based on some maps and calculations.” *Id.*, col. 2, ll. 64–67 (emphasis added). As such, the alleged invention describes a “method of wireless call routing and channel assignment between various

cell site locations such that the optimum route back to one of several telephone exchanges is chosen in an interference-free manner.” *Id.*, col. 3, ll. 35–39 (Summary of the Invention). Indeed, the avowed “purpose” of the Asserted Patents is to provide a “method so that cell sites can be placed anywhere, without a specific cell pattern, and that the routing and channel assignment to the desired exchange locations through intermediate cell sites will occur *automatically*.” *Id.*, col. 4, ll. 37–42 (emphasis added). “The system *automatically* adapts to the entrance of the new node, and call routings and channel assignments for the call routings are handled automatically.” *Id.*, col. 6, ll. 11–13 (emphasis added). The Asserted Patents are thus alleged to merely *automate* prior art techniques that previously required “expensive” reference “to standard topographical maps, propagation charts, and antenna compass directions.” *Id.*, col. 2, ll. 44–63.

The devices that perform these *automatic* methods were not new in 1995:

There are three different types of functional units described herein that contain radio equipment.

“Nodes” are radio units that contain the following components:

A) Radio transmitters and radio receivers to communicate with various remotes similar to today's cell sites.

B) Radio transmitters and radio receivers to communicate with other nodes perhaps similar in concept to repeaters.

C) Internal switching means to connect various receivers to various transmitters.

E) Internal computer means to perform functions and calculations typically associated with on line computers.

F) Scanning receivers are also included herein. These receivers are controlled by the associated computer to move or

G) Antennas

“Drops” are transmitting and receiving sites that connect to the land line phone network. These drops are related to the stationary half of a consumer cordless phone. Drops are normally associated with a phone exchange, and referred to also as “exchange drops”.

“Remotes” are radio units that are free to move about and transmit and receive information. These remotes are related to mobiles, portables, cordless computer keyboards, and the movable half of a consumer cordless phone.

Each node, drop, and remote has a unique identifier or code that identifies that particular unit.

Certain new technologies are available that would combine several of the functions of the above components into a single operative unit. However, for

purposes of description of the functionality of the system herein, the concepts are treated as separate hardware units.

Id., col. 4, li. 56–col. 5, li. 20. The ‘607 (reissue) Patent further discloses that:

It is also known in cellular radio that using sectoring antennas at base stations to direct signals to and from mobiles accomplishes two important things. The first is that the desired signal level is increased which offers better communication. The second is that spectrum efficiency is improved in that antennas only have to radiate in on direction, and consequently radio waves are spread in only on direction.

‘607 Patent, col. 4, ll. 57–63. Thus, the Asserted Patents do not disclose any special devices or programming or disclose any new technological advance; they simply purport to automate known processes using known and conventional technology, which is merely functionally claimed in the Asserted Patents.

IV. ARGUMENT

A. Applicable Legal Standard

The issue of whether a patent is directed to ineligible subject matter is a question of law. *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014). A complaint for patent infringement can be dismissed under Rule 12(b)(6) when, viewing the patent claims in the light most favorable to the plaintiff—including accepting any of the plaintiff’s proposed claim constructions—the claims do not cover patentable subject matter.¹ *See, e.g., Tuxis Techs., LLC v. Amazon.com, Inc.*, 2015 WL 1387815, at *2 (D. Del. Mar. 25, 2015).

The Federal Circuit has held that a district court is not required to individually address

¹ JSDQ has previously agreed via a stipulated order entered by this Court to certain constructions of various terms found in the asserted claims. *See JSDQ Mesh Techs. LLC v. Lazy Days’ R.V. Center, Inc.*, C.A. No. 14-1405-GMS (D. Del. Feb. 22, 2016) (D.I. 57). Those constructions, however, either provide for “plain and ordinary meaning” or merely restate the claim language in equivalently general and functional terms. Therefore, even using those constructions, the claim language remains equally abstract and does not cabin the claims to an inventive concept. *See Asghari-Kamrani v. United Servs. Automobile Assoc.*, C.A. No. 15-478 (E.D. Va. July, 5 2016) (“No matter what construction the Court adopts the substance of the claims is the same.”) (Exhibit C).

claims not asserted or identified by the nonmoving party in its analysis of patent-eligibility, so long as the court identifies a representative claim and “all the claims are substantially similar and linked to the same abstract idea.” *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (internal quotation marks omitted); *see also Inventor Holdings, LLC v. Bed Bath & Beyond Inc.*, 123 F. Supp. 2d 557, 558 n.1 (D. Del. 2015) (“The court concludes that the claims are directed to the same abstract idea such that addressing each claim [is] not necessary.”).

Moreover, the patent-eligibility of patent claims should not be presumed. Judge Mayer’s concurring opinion in *Ultramercial* stated, “while a presumption of validity attaches in many contexts, no equivalent presumption of eligibility applies in the section 101 calculus.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 721 (Fed. Cir. 2014) (Mayer, J., concurring). Consistent with this observation, the “clear and convincing evidence” standard—a burden of proof that is applicable to disputed issues of fact—is inapposite to resolving the instant motion to dismiss, which arises in the context of determining patent-eligibility, a question of law. *See TriPlay, Inc. v. WhatsApp Inc.*, No. 13-1703-LPS, ECF No. 52, Slip Op., p. 8 (D. Del. Apr. 28, 2015) (“[E]ven assuming that the clear and convincing evidence standard is applicable to Section 101 challenges, it would apply only to the resolution of factual disputes, not to the resolution of pure issues of law.”); *Visual Memory LLC v. NVIDIA Corp.*, C.A. No. 15-789-RGA, at 11 (D. Del. May 27, 2016) (“Patent eligibility is a matter of law” where “the clear and convincing standard ‘has no application.’”) (citing *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2253 (2011) (Breyer, J., concurring)). However, even if the clear and convincing evidence burden applies, the claims of the Asserted Patents are ineligible for the reasons set forth below.

B. The Framework for the Section 101 Analysis

Under Section 101, “whoever invents or discovers any new and useful process, machine,

manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. There are, however, three exceptions to the categories of patentable subject matter: laws of nature, physical phenomena, and abstract ideas. *Bilski v. Kappos*, 561 U.S. 593, 594 (2010).

In the recent decisions of *Mayo Colab. Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012), and *Alice*, 134 S. Ct. 2347 (2014), the Supreme Court established a two-part test for “distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. At step one of the *Alice* analysis, a court must evaluate a representative claim to determine whether it is drawn to an abstract idea, as is relevant here. *Id.* The abstract ideas category is “broad” and encompasses any fundamental concept or longstanding practice. *See Morales v. Square, Inc.*, 75 F. Supp. 3d 716, 724 (W.D. Tex. 2014). “In determining whether a claim is directed to an abstract idea, courts look past the claim language to the purpose of the claim—in other words, what the invention is trying to achieve.” *Id.* (internal quotations omitted).

If the claim is drawn to an abstract idea, the court moves to step two of the *Alice* analysis: determining whether the “additional elements” of the claim, beyond the abstract idea, provide an “inventive concept” “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract concept] itself.” *Alice*, 134 S. Ct. at 2355. Additional substantive limitations must “narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.” *Accenture Global Servs. GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013).

The Supreme Court has observed that claims that merely implement an abstract idea on a computer fail to transform the subject matter into a patent-eligible invention. *See, e.g., Alice*, 134 S. Ct. at 2358 (“Given the ubiquity of computers . . . wholly generic computer implementation is

not the sort of ‘additional feature[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’”) (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1297). Similarly, the Federal Circuit has explained that a claim’s invocation of a computer network adds no inventive concept. *Ultramercial*, 772 F.3d at 716. On the other hand, the Federal Circuit recently found that claims were not directed to an abstract idea where “the focus of [those] claims [was] on the specific asserted improvement in computer capabilities . . . , [rather than] on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 2016 WL 2756255, at *5 (Fed. Cir. May 12, 2016).

The failure of generic computer implementations to transform abstract ideas into patent-eligible inventions is apparent when applying the so-called machine-or-transformation test to the Section 101 analysis. This test seeks to determine patent-eligibility by asking if a claimed process (1) is tied to a particular machine or apparatus, or (2) transforms a particular article into a different state or thing. *Ultramercial*, 772 F.3d at 716. The machine-or-transformation test can provide a useful clue in the second step of the *Alice* analysis. *Id.* A claimed process that is tied only to a general-purpose computer is not tied to any particular novel machine or apparatus, even if that computer is connected to a network, such as the Internet, because the Internet is “a ubiquitous information-transmitting medium, not a novel machine.” *Id.* at 716–17. Further, “[a]ny transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the analysis.” *Id.* at 717; *see also Intellectual Ventures I LLC v. Symantec Corporation*, No. 10-1067-LPS, 2015 WL 1843528, at *5 (D. Del. Apr. 22, 2015) (“To be ‘a meaningful limit on the scope of the claims,’ the addition of a machine ‘must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more

quickly.’”) (quoting *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1332–33 (Fed. Cir. 2010)).

C. The Asserted Patents Do Not Claim Patent-Eligible Subject Matter

Looking at the chosen claim language, it is clear that the Asserted Patents are directed to abstract ideas that reflect fundamental concepts and longstanding communication practices. Further, it is apparent that the claims do not amount to anything more than an improper attempt to monopolize these abstract concepts in the field of *tele*communications. That the claims disclose performing steps using prior art computers does not add a sufficiently inventive concept to make them patent-eligible because the claims simply rely on generic computer functions—such as transmitting, receiving, modifying, and deleting data—which this Court and others have routinely held do not add sufficiently more “to transform the claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357 (internal quotation omitted).

1. Claim 47 of the ‘828 Patent Is Representative.

Claim 47 of the ‘828 patent is representative and recites:

47. A method of providing a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, the method comprising:

- establishing radio links between pairs of said nodes using radio signals transmitted from each said node and received by other said nodes without regard to the relative locations of said nodes of said pair, wherein at least some of said radio signals include associated routing messages including an actual radio parameter of said radio signals;
- storing said routing messages received by each said node;
- selecting a said routing message associated with a preferred said radio link using said actual radio parameter of said received radio signals;
- deleting at least some of said other stored routing messages;
- modifying said selected routing message;
- retransmitting said modified routing message; and
- assembling said preferred radio links into a radio communication route between an originating node and a destination node, said route including plural said radio links.

(D.I. 1, Ex. A (‘828 patent), claim 47.) Claim 47 thus discloses a method of “providing a radio communication route” among nodes “independent of a central computer.”

Claim 47 is representative of the other claims of the Asserted Patents. While JSDQ has not yet specified all of the claims that are allegedly infringed, the Court may still dismiss JSDQ's cause of action for infringement of the Asserted Patents because all the claims are "substantially similar, linked to the same general abstract ideas," and fail to add sufficiently "more" to render the claims patent-eligible.² *Content Extraction*, 776 F.3d at 1347; *see also Personalized Media Communications, LLC v. Amazon.Com, Inc.*, 2015 WL 4730906, at *2 (D. Del. Aug. 10, 2015) (district court may properly evaluate eligibility of patent through analysis of "a representative claim"); *Inventor Holdings*, 2015 WL 5000838, at *1 n.2 ("addressing each claim not necessary"). Such is the case here.³

None of the other claims "offers a meaningful limitation" over the abstract idea that is claimed by the representative claim. *See Alice*, 134 S. Ct. at 2360. At best, they attempt to "limit[] an abstract idea to one field of use or add[] token post solution components," *Bilski v. Kappos*, 561 U.S. 593, 612 (2010), or they recite other "well-understood, routine, conventional activity," *Mayo*, 132 S. Ct. at 1299. For example, independent claim 56 of the '828 patent further specifies that the "preferred radio links" are "assembl[ed]" into "an optimum radio communication route" and "changing said route . . . only when a condition of the route changes." Similarly, several of the dependent claims specify conventional functions that fail to transform the corresponding claim into a patent-eligible application of the otherwise ineligible abstract

² In its Complaint, JSDQ alleges that "at least independent method claims 47, 56, and 68 of the '828 Patent" and "at least independent method claims 29 and 36 of the '648 Patent" are infringed. (D.I. 1, ¶¶ 18, 29.)

³ Resolving the § 101 eligibility question early is particularly appropriate here. JSDQ has filed more than 25 lawsuits—20 in this district alone—that assert these patents against an array of defendants and products. As the Federal Circuit indicated in *Ultramercial*, early resolution of § 101 issues may protect defendants against plaintiffs who file "nearly identical patent infringement complaints against a plethora of diverse defendants." 772 F.3d at 719 (citation omitted). Further, "[t]here is no requirement that the district court engage in claim construction before deciding § 101 eligibility." *CyberFone Sys., LLC v. CNN Interactive Group, Inc.*, 558 F. App'x 988, 991 n.1 Fed. Cir. 2014.

idea.⁴ *Content Extraction*, 776 F.3d at 1349. Accordingly, all the claims stand or fall together under Section 101. As the following analysis demonstrates, they fall soundly under the weight of Section 101 case law.

2. The Claims of the ‘828 and ‘648 Patents Are Not Patent-Eligible.

The asserted claims of the ‘828 and ‘648 Patents are directed to the abstract idea of providing a communication route between an originating location and destination location. Such a disembodied concept standing alone is not patentable; only a specific implementation of that concept in a particular machine or its use in a particular real-world implementation is even arguably eligible for of patent protection. *Bilski*, 561 U.S. at 609. The claims of the ‘828 and ‘648 Patents lack any such specificity; they do nothing more than require that this abstract idea be broadly implemented “among a plurality of individual nodes capable of distribution arbitrarily relative to each other” using “routing messages.”

a) Representative Claim 47 of the ‘848 Patent is Directed to an Abstract Idea.

Under *Alice*, the court must first identify the purpose of the claim—in other words, determine what the claimed invention is trying to achieve—and ask whether that purpose is abstract. In other words, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

The abstract idea of representative claim 47 is clear: providing a communication route between an originating location and destination location. This is analogous to patent claims ruled ineligible under Section 101 in several recent decisions. *Cyberfone Sys., LLC v. CNN Interactive*

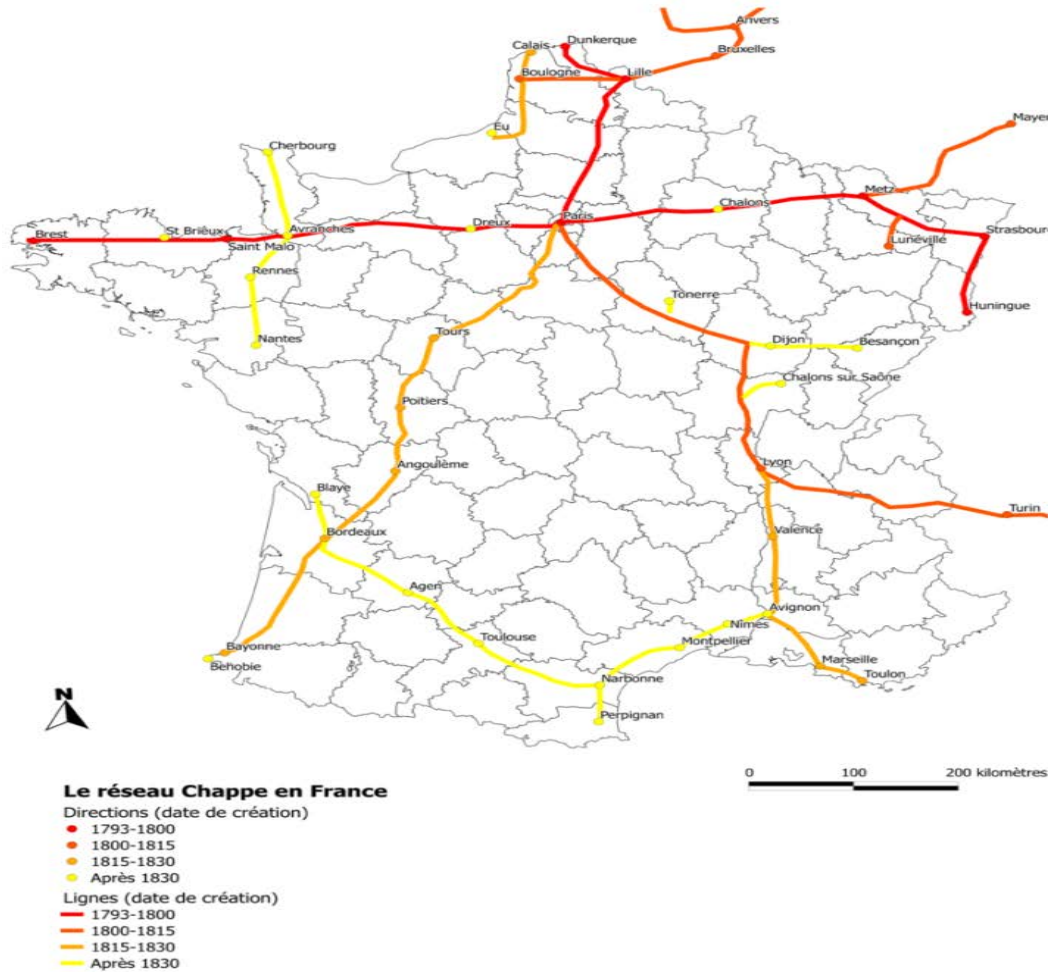
⁴ See claim 48 (assembling “multiple radio communication routes”); claim 49 (specifying the claimed “radio parameter” to be “strength of said radio signals”); claim 50 (the nodes being “of at least two different categories”); and claim 51 (specifying use of a “predetermined minimum threshold” of signal strength).

Grp., Inc., 558 F. App'x 988, 991–92 (Fed. Cir. 2014) (“using categories to organize, store, and transmit information” is an abstract idea); *Mobile Telecommunications Techs., LLC v. Blackberry Corp.*, 2016 WL 2757371, at *3 (N.D. Tex. May 12, 2016) (“[T]he asserted claims . . . are directed to the basic idea of sending and storing messages, which is not rooted in computer technology.”); *cf. Enfish*, 2016 WL 2756255, at *4–5 (describing the central question as “whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool”).⁵

Courts have recognized that one way of assessing whether the claims of a patent are directed to an abstract idea is to consider whether all of the steps of the claim could be performed by human beings in a noncomputerized “brick and mortar” context. *Intellectual Ventures I*, 2015 WL 1843528, at *9 (citing *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353 (Fed. Cir. 2014)); *see also id.* (“At step one of the *Alice* framework, it is often useful to determine the breadth of the claims in order to determine whether the claims extend to cover a ‘fundamental . . . practice long prevalent in our system. . . .’”) (quoting *Alice*, 134 S. Ct. at 2356).

In this case, JSDQ has simply attempted to patent a computerized version of a method of using a semaphore telegraph, such as the *le systeme Chappe*—the decentralized Napoleonic semaphore network of signaling stations used to carry messages across 19th century France. *See* https://en.wikipedia.org/wiki/Semaphore_line; *see also Mobile Telecommunications Techs.*, 2016 WL 2757371, at * (finding the “concept” of the claim “similar to the concept of stenography,” which confirms that the claim “is directed to a longstanding, well-known practice, rather than a patent-eligible idea”).

⁵ Here there is no central feature of “an improvement to computer functionality” akin to *Enfish*’s “self-referential table,” as opposed to using a computer “in its ordinary capacity.” 2016 WL 2756255, at *4–5.



Comparing the abstract idea recited in representative claim 47 to the *le système Chappe* above demonstrates that humans have communicated in this fashion for well over two centuries:

Step of '848 Patent Claim 47	Corresponding Routine Step of Humans Using Semaphore Telegraph
A method of providing a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, the method comprising:	Each node would be a semaphore telegraph station and together they would form a network of nodes like the one in the picture above where the French territory in the 19th century is shown with a network of hundreds of semaphore telegraphs communicating wirelessly (<i>i.e.</i> , visually). Instead of a computer at each node, communication would be coordinated by human decision makers at each station.
establishing radio links between pairs of said nodes using radio signals transmitted from	The human operator at each station (<i>i.e.</i> , node) establishes a wireless visual "link" with other

Step of '848 Patent Claim 47	Corresponding Routine Step of Humans Using Semaphore Telegraph
each said node and received by other said nodes without regard to the relative locations of said nodes of said pair, wherein at least some of said radio signals include associated routing messages including an actual radio parameter of said radio signals;	station(s) in the line of sight to transmit messages. Some of these messages would be routing messages, for example, to establish the destination or source of a message. For example, some messages may be “High priority—a signal from Paris” or “Lower priority—a signal from a Provincial director.” (Exhibit A (“control signals”)).
storing said routing messages received by each said node;	The human operator at a location writes down or remembers an originating or incoming message and therefore stores them.
selecting a said routing message associated with a preferred said radio link using said actual radio parameter of said received radio signals;	The human operator at a location is able to select a specific routing message, for example, to determine if that message has reached its destination or needs to be sent out to nearby station, based on a parameter in the message (such as the origin or destination or a message).
deleting at least some of said other stored routing messages;	The human operator at a location is able to forget or destroy older messages such as messages that have been sent out or those that have reached their destinations.
modifying said selected routing message;	The human operator at a location can modify the routing message. For example, an operator may choose to communicate that “I cannot see (because of fog, or snow)” or “An intermediate station is blocking or slowing transmission.” (Exhibit A).
retransmitting said modified routing message; and	The humans at the locations can retransmit the messages to nearby nodes in line of sight. For example, an operator may communicate to a neighboring location, “Please repeat your last message.” (Exhibit A).
assembling said preferred radio links into a radio communication route between an originating node and a destination node, said route including plural said radio links.	The humans at the locations can <i>in toto</i> route a message to a specific destination, for example in the map of France above, from the Perpignan station in southern France, Paris can be reached through multiple routes.

When a claim’s limitations simply lay out an interaction that can be and routinely is performed by humans, this demonstrates that the claim is directed to an abstract idea and not rooted in computer technology. *See Intellectual Ventures I*, 2015 WL 1843528, at *9; *Walker*

Digital, LLC v. Google, Inc., 2014 WL 4365245, at *6, *9 (D. Del. Sept. 3, 2014) (invalidating under Section 101 patent claims directed to controlled exchange of information that had steps that could be and routinely were performed by humans); *see also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (observing that when all the claims steps “can be performed in the human mind or by a human using a pen and paper,” the claim is directed to “unpatentable mental processes”). This is the case even when the claims purport to require computer technology. *See buySAFE, Inc. v. Google Inc.*, 964 F. Supp. 2d 331, 335 (D. Del. 2013) (“A computer is not a significant part [of] the process if that process can be performed without a computer.”), *aff’d*, 765 F.3d 1350 (Fed. Cir. 2014); *Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (claims reciting an “interface,” “network,” and a “database” are nevertheless directed to an abstract idea); *see also YYZ, LLC v. Hewlett-Packard Co.*, 2015 WL 5886176, at *3 (D. Del. Oct. 8, 2015) (“Because computer software comprises a set of instructions, the first step of *Alice* is, for the most part, a given; i.e., computer-implemented patents generally involve abstract ideas.”).

This is precisely what JSDQ’s Asserted Patents purport to do. They are directed to an abstract idea, and the fact that they may be done “automatically” by conventional telecommunication technology does not make them any less abstract. *See In re TLI Communications LLC*, 2015-1372, at 8 (Fed. Cir. May 17, 2016) (“[T]he specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized manner.”) Here, the “specification fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms.” *Id.* at 9.

JSDQ’s abstract concept stands in stark contrast to the “specific type of data structure” that was found sufficiently nonabstract in the recent *Enfish* decision by the Federal Circuit.

Although the ‘828 Patents’ claims allegedly “touch[] on what is asserted to be an improvement to . . . computer capabilities,” they are not “directed to a ‘specific’ or ‘concrete’ improvement in the way software operates,” but instead are “directed to . . . the mere *idea* of” communication route determination by computers. *Yodlee, Inc. v. Plaid Techs., Inc.*, 2016 WL 2982503, at *9 (D. Del. May 23, 2016) (emphasis in original) (quoting *Enfish*, 2016 WL 2756255, at *8); *see also Device Enhancement LLC v. Amazon.com, Inc.*, 2016 WL 2899246, at *10 (D. Del. May 17, 2016) (“it is evident that there is a specificity requirement”).

The ‘828 Patent claims, “considered in their entirety,” are directed to the disembodied concept of providing a communication route. *Internet Patents*, 790 F.3d at 1346. This type of broad concept “is an abstract idea, despite the patent’s limitation of that idea to a particular technological environment.” *Visual Memory*, C.A. No. 15-789-RGA, at 10; *TLI*, 2015-1372 at 11 (“[A]lthough the claims limit the abstract idea to a particular environment—a mobile telephone system—that does not make the claims any less abstract for the step 1 analysis.”).

b) Representative Claim 47 of the ‘848 Patent Contains No Inventive Concept.

Under the second step of the *Alice* analysis, the Court must next “determine whether the claims do significantly more than simply describe the abstract method.” *Ultramercial*, 772 F.3d at 715. “It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea. . . . [rather,] the components must involve more than the performance of ‘well-understood, routine, conventional activit[ies]’ previously known in the industry.” *TLI*, 2015–1372 at 11 (citation omitted). Since “a known idea, or one that is routine and conventional, is not inventive in patent terms,” this analysis “favors inquiries analogous to those undertaken for determination of patentable invention.” *Internet Patents*, 790 F.3d at 1346. Neither “[a] simple instruction to apply an abstract idea on a computer,” nor “claiming the improved speed or efficiency inherent in applying the abstract idea on a computer”

satisfies the requirement of an “inventive concept.” *Intellectual Ventures*, 792 F.3d at 1367–68 (a “database” and “a communication medium” “are all generic computer elements”).

Here, the limitations of representative claim 47 do not add an inventive concept to the abstract idea to render it patent-eligible. For example, the claim does not disclose any specific hardware or detail regarding how the method “establishes” radio or wireless links between nodes “using radio signals,” “without regard to the relative locations of said nodes,” “wherein at least some of said radio signals include associated routing messages including an actual radio parameter of said radio signals.” ‘848 Patent, cl. 47. The claims further fail to disclose any detail—much less the specific detail required to pass muster under *Alice* and its progeny—regarding the criteria used to “select[] a said routing message associated with a preferred said radio link using said actual radio parameter” or how and in what manner a routing message is “modif[ied]” and “preferred radio links” are “assembl[ed].” *Id.* The claims are thus “recited too broadly and generically to be considered sufficiently specific and meaningful application of their underlying abstract ideas.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (2014); *see also Internet Patents*, 790 F.3d at 1348 (finding patent ineligible where claim “contain[ed] no restriction on how the result [was] accomplished”).

While the ‘828 Patent (and its twin, the ‘648 Patent) describe the idea as implemented using “radio” or “wireless” links between nodes, the specification acknowledges that these components were well-known in the art when the application was filed. *See* ‘648 patent, col. 4, li. 56–col. 5, li. 20. Further, the described functions—establishing, storing, selecting, deleting, retransmitting, and assembling—are “well-understood, routine, conventional activit[ies] previously known in the industry.” *Alice*, 134 S. Ct. at 2359 (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294); *see also Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (“These generic computer components do not satisfy the

inventive concept requirement.”). At most, JSDQ’s claims “attempt to limit the abstract idea” of providing a communication route “to a particular technology environment,” *i.e.*, *telecommunications*. *Content Extraction*, 776 F.3d at 1348. That is insufficient. *Alice*, 134 S. Ct. at 2358. Unspecified limitations such as, *inter alia*, “using” radio signals or “using” a radio parameter fail to supply the required inventive concept without an explanation for “how th[is] result is accomplished.”⁶ *See Intellectual Ventures*, 792 F.3d at 1371; *Internet Patents*, 790 F.3d at 1348; *see also buySAFE*, 765 F.3d at 1355 (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”); *CyberSource*, 654 F.3d at 1373 (“[C]omputational methods which can be performed entirely in the human mind are the types of methods that embody the ‘basic tools of scientific and technological work’ that are free to all men and reserved exclusively to none.” (quoting *Gottschalk*, U.S. at 67)).

Application of the machine-or-transformation test also demonstrates that representative claim 47 is not patent eligible. The method of this claim generally describes the organization and exchange of intangible information; it does not “transform a particular article into a different state or thing.” *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (*en banc*); *see also CyberSource*, 654 F.3d at 1370 (“The mere collection and organization of data . . . is insufficient to meet the transformation prong of the test.”). There is also a complete absence of any novel machine to which claim 47 is tied, which was the fatal flaw of the exchange of information on the Internet

⁶ This Court has recognized that, under the § 101 inquiry, reliance on the specification to avoid invalidity is misplaced because “[t]he specification is not the text sought to be patent-eligible,” but rather the claim language is. *Inventor Holdings*, 123 F.Supp.3d at 561. In any event, here—as in *TLI*—“the specification limits its discussion of these components to abstract functional description devoid of technical explanation as to how to implement the invention,” and “[s]uch vague, functional descriptions . . . are insufficient to transform the abstract idea into a patent-eligible invention.” *TLI*, 2015–1372 at 11, 14 (finding that “the claims’ recitation of a ‘telephone unit,’ a ‘server,’ an ‘image analysis unit,’ and a ‘control unit’ fail to add an inventive concept sufficient to bring the abstract idea into the realm of patentability.”).

using general purpose computers at issue in *Ultramercial*, 772 F.3d at 717 (“nowhere does the [’346 Patent] tie the claims at issue to a novel machine”); *see also OpenTV, Inc. v. Apple, Inc.*, No. 14-CV-01622-HSG, 2015 WL 1535328, at *5 (N.D. Cal. Apr. 6, 2015) (patent reciting method for routing user information using identification codes and a “provider component for broadcasting” and a “reception component for storing” did not meet the machine-or-transformation test). Claim 47 thus fails the machine-or-transformation test.

Accordingly, representative claim 47 amounts to “nothing significantly more than an instruction to apply the abstract idea” of providing a communication route, where this is accomplished generally by generic computing devices. *See Alice*, 134 S. Ct. at 2360 (“Nearly every computer will include a ‘communications controller’ and a ‘data storage unit’ capable of performing the basic calculation, storage, and transmission functions required by the method claims.”); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333–34 (Fed. Cir. 2012) (limiting claimed method of managing credit applications to electronically processed applications did not impose sufficiently meaningful limits on the abstract idea in claim); *Bancorp Servs. L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculation or computations could not.”).⁷ Through this claim, and all others like it, JSDQ seeks to monopolize every concrete application of providing a wireless communication route automatically. Allowing such claims to survive “would tend to

⁷ *See also Mobile Telecommunications Techs.*, 2016 WL 2757371, at *4 (claims directed to abstract idea of sending and storing messages ineligible because “mobile units” claimed to carry out the claimed steps “are generic computer hardware components” and “do not add something significantly more.”); *Mobile Telecommunications Techs., LLC v. United Parcel Serv., Inc.*, 2016 WL 1171191, at *7 (N.D. Ga. Mar. 24, 2016) (“paging operations center” and “wireless page messages” insufficient to transform patent’s abstract idea of providing delivery notification into patent-eligible concept); *Morales*, 75 F. Supp. at 725 (inclusion of a “response unit,” a “local area repeater,” and a “data center”—all of which consist of generic hardware—is not inventive concept sufficient to transform abstract idea into a patentable claim).

impede innovation rather than promote it, thereby thwarting the primary object of the patent laws.” *Alice*, 134 S. Ct. at 2354 (internal quotations omitted).

3. The Claims of the ‘607 and ‘675 Patents Are Not Patent-Eligible

The reissued patents incorporate the disclosure of the ‘828 and ‘648 Patents, and claim the same abstract idea.⁸ They also include the use of “directional radio signals” wherein the assembled routes “include[e] at least one said directional link.” ‘675 patent, cl. 3. But the use of directional signals and routes was well-known in the art, as was made abundantly clear in the specifications of the Asserted Patents.⁹ Thus, the natural result of using conventional directional antennas does not add anything to the ‘607 and ‘675 Patents’ claims so as to make them patent-eligible. And because the ‘607 and ‘675 Patents claim the same abstract idea as the ‘828 and ‘648 Patents, they fail under Section 101 for the same reasons: they claim what humans have done for centuries, they fail to transform anything into something new, and they are not tied to any novel machinery. *See* Exhibit B (mapping exemplary claim 15 of the ‘675 Patent to Semaphore Telegraph).

V. CONCLUSION

For the reasons set forth above, the claims of all of the Asserted Patents are directed to patent-ineligible subject matter under Section 101. Accordingly, Defendants’ Motion to Dismiss should be granted.

⁸ In its Complaint, JSDQ alleges that “at least independent method claim 15 of the ‘675 Patent” and “at least independent method claim 3 of the ‘607 Patent” are infringed by the same accused products as are alleged to infringe the other two patents. (D.I. 1, ¶¶ 38, 45.)

⁹ *See, e.g.*, ‘607 patent, col. 4, li. 57–col. 5, li. 2 (“It is also known in cellular radio that using sectoring antennas at base sites to direct signals to and from mobile accomplishes two important things. The first is that the desired signal level is increased, which offers better communication. The second is that spectrum efficiency is improved in that antennas only radiate in one direction, and consequently, radio waves are spread in only one direction. . . . [Thus,] advantages of better signal quality and also better spectrum utilization occur when directional antennas are added to the base sites to help the radio routing function between base sites.”).

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